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10/617,975	07/12/2003	David R. Payne	82380-00661	4897
28839	7590	09/08/2005	EXAMINER	
MCKINNEY & STRINGER, P.C. 101 N. ROBINSON OKLAHOMA CITY, OK 73102			ADDIE, RAYMOND W	
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/617,975
Filing Date: July 12, 2003
Appellant(s): PAYNE ET AL.

MAILED

SEP 08 2005

GROUP 3600

Lawrence Grable
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6/21/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

The amendment after final rejection filed on 3/14/2005 has not been entered.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 4-12 do stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,883,015	Hesse et al.	11-1998
6,308,787	Alft	10-2001
5,556,253	Rozendaal et al.	09-1996

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hesse et al. # 5,833,015 in view of Alft # 6,308,787 B1.

Hesse et al., discloses a method for drilling and backreaming a horizontal bore hole, the method comprising:

Automatically rotating and pulling a drill string (3), having a backreamer (5) through the horizontal borehole.

Automatically reducing a rate of pullback if a rotation pressure on the drill string is greater than a predetermined limit.

Automatically reducing the rate of pullback if a rotation speed of the drill string is less than a predetermined limit.

Increasing the rate of pullback if the rotation pressure is less than the predetermined limit, increasing the rotation speed of the drill string is greater than a predetermined limit, and the product tension at the backreamer (24) is less than a predetermined limit.

Attaching a utility line(8) to the backreamer, after the boring tool (26) has exited the earth at location (24). See Hesse et al. Col. 3, ln. 50-col. 5, ln. 23.

What Hesse et al. does not disclose is automatically reducing the length of the drill string. However, Alft teaches a method of operating a horizontal boring machine having an automated drill string (22), which can be lengthened or shortened automatically or manually, by removing a pipe section from the drill string, either automatically or manually. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the method of forming a bore hole, of Hesse et al., with the method of automatically lengthening or shortening the drill string when the drill string needs to be lengthened or shortened, as taught by Alft et al., in order to maximize boring efficiency. See Alft col. 12, lns 5-20.

In regards to claim 6, Hesse et al. discloses it is desirable to pull a utility line through a borehole, by attaching the utility line (8) to a drill head (5), and to transmit operational data from the bore head to the drilling machine to maximize boring efficiency. What Hesse et al. does not disclose is recording the actual location of the utility line as the utility line is automatically pulled through the borehole via a transmission line disposed within the drill string.

However, Alft discloses it is known to track the position of a drill head (24) in real time, using a sonde-type transmitter and remote control unit that uses a traditional methodology for locating the drill head. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the method of backreaming a borehole of Hesse et al. with the method of tracking the drill head, as

taught by Alft, in order to continuously determine and record the location of the utility line, connected to the drill head. See col. 12, Ins.10-41, col. 16, Ins. 16-29.

In regards to Claims 8-11 although neither Hesse et al., nor Alft explicitly recite reducing the rate of pullback of the drill string by a certain percentage; both Hesse et al., and Alft does disclose that the rate of pull-back can be reduced or terminated based upon whether the rotation speed, rotation pressure(torque) of the drill string, or the product tension (lubricating mud pressure) is above or below a pre-determined level. Hence, it would be obvious that the amount of reduction required could be correlated to a specific percentage of the current rate of pull back of the drill string. See col. 44.

(11) *Response to Argument*

Appellant's arguments filed 6/21/05 have been fully considered but they are not persuasive.

Appellants' argue against the rejection of claims 4-12, as being unpatentable over Hesse et al., in view of Alft, by stating "Hesse does not teach automatically reducing the length of the drill string as required...Alft does not teach the necessary sensors or control logic needed to process information from the sensors and activate the mechanical devices used to reduce a length of drill string".

Applicant supports the argument by suggesting that "Alft's mention of its desire to automatically reduce a length of drill string does not render Appellants' claims obvious".

However, the Examiner does not concur.

Appellant is reminded the Claims 4-12 pertain to a method for backreaming...comprising the steps of automatically...controlling 3 basic drilling functions.

Further, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., sensors or control logic needed to process information from the sensors and activate the mechanical devices used to reduce a length of drill string) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In this case, the method claimed does not require any specific structure be used to perform the intended functions; only the ability to do so. To which; Hesse et al. clearly discloses all the necessary structure (1, 2, 9) and method steps claimed, except for automatically reducing a length of the drill string. See Col. 3, ln. 50-col. 5, ln. 24. However, Alft explicitly teaches a central processor (74) a rod loader unit (141) capable of performing threading and unthreading operations between two successive pipe segments making up or breaking down the drill string (180), as Appellant readily admits in Page 6 of Appellants' Brief. See also (see col. 29, lns. 9-19; 32-col. 32, ln. 7; emphasis on col. 30, lns. 40-64.

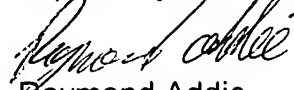
Art Unit: 3671

Clearly the reference in Alft to unthreading operations on the drill string is a direct reference to breaking down a pipe segment of the drill string (180) by automatically unthreading one pipe segment from the next. See Col. 30.

The fact Appellant readily admits "Alft's mention of its desire to automatically reduce a length of drill string"; does in fact make the method steps of claim 4 obvious to the teaching of how to automatically reduce a drill string, by unthreading adjacent pipe segments, as taught by Alft. The fact Alft incorporates by reference, the rod loader of Rozendaal et al., is irrelevant to the claimed method, since the claimed method does not preclude any structure capable of performing the function.


For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,


Raymond Addie

August 25, 2005

Conferees

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